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September 26, 2014

Mr. Shawn Graham
Executive Director
Teacher's Retirement System
State of Montana
1500 Sixth Avenue
Helena, MT 59620-0139

Re: Montana University System Retirement Program Supplemental Contributions

Dear Mr. Graham:

As required by MCA, Section 19-20-621, the purpose of this letter is to determine the financial position of the Montana University System (MUS) and determine the supplemental contribution rate necessary to amortize the past service liability of the university members of the Montana Teachers' Retirement System (TRS) by July 1, 2033. The required supplemental contribution rate for the period beginning July 1, 2015 is 9.75%% of Montana University System Retirement Plan member salaries. This represents an increase of 0.71% from the amount that was determined as of July 1, 2012 for the period beginning July 1, 2013. The increase in the required contribution rate is primarily attributed to a decrease in the payroll growth assumption and the failure to adopt prior recommended supplemental contribution increases. In order to maintain the current supplemental contribution rate of 4.72% the MUS would be required to contribute $150.6 million. The summary of findings is attached to this letter.

The promised benefits of the System are included in the actuarially calculated contribution rates which are developed using the Entry Age Normal cost method. Market value of assets is used for actuarial valuation purposes. Gains and losses are reflected in the unfunded accrued liability that is being amortized by regular contributions of payroll determined as a percentage of payroll, on the assumption that payroll will increase by 4.00% annually. The assumptions recommended by the actuary and adopted by the Board are in the aggregate reasonably related to the experience under the Fund and to reasonable expectations of anticipated experience under the Fund.

The calculations assume the value of the GABA benefits for MUS members are not financed by the supplemental contributions made as a percent of member salaries but are instead financed by the TRS contribution rate.

This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

Future actuarial results may differ significantly from the current results presented in this letter due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

Respectfully submit,

Edward A. Macdonald, ASA, FCA, MAAA
President

Todd Green, ASA, FCA, MAAA
Principal and Consulting Actuary

EAM:TBG/kc

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Montana University System

Retirement Program Supplemental Contributions

Summary of Findings

VALUATION DATE	**July 1, 2014**	**July 1, 2012**
Active members		
Number	340	408
Annual compensation	$ 24,172,458	$ 28,658,560
Retired members and beneficiaries		
Number	1,621	1,602
Annual allowances	$ 44,134,958	$ 42,026,406
Inactive Members		
Vested Terminated Members	80	76
Non-Vested Terminated Members	158	152
Assets		
Market value	$ 238,358,550	$ 206,150,427
Unfunded accrued liability	271,008,699	291,875,026

CONTRIBUTION NECESSARY TO AMORTIZE UNFUNDED LIABILITY		
Supplemental Contribution Rate*	9.75%	9.04%
Amortization Period (Years)	19	21
Current Statutory Supplemental Contribution Rate	4.72%	4.72%
Supplemental Contribution Rate Shortfall	5.03%	4.32%
Lump Sum Necessary to Maintain Current Statutory Supplemental Contribution Rate	$150.6 Million	

* The 9.75% contribution rate as of July 1, 2014 would increase to 13.56% based on the 1.50% GABA provision and 12.07% under the 0.50% GABA provision for MUS members if the GABA were financed by the supplemental contributions.